Environmental Operations, Inc.
CLEARING THE WAY

February 28, 2013

Mr. Bruce Morrison
Project Manager
U.S. Environmental Protection Agency, Region 7
11201 Renner Boulevard
Lenexa, KS 66219

RE: Source Investigation in the vicinity of MW-38A and MW-38B
Solutia – John F. Queeny Plant
St. Louis, Missouri
EPA ID No. MOD 004 954 111

Dear Mr. Morrison:

As previously communicated by Environmental Operations, Inc. (EOI) in progress letters and described in the Annual Baseline Groundwater Monitoring Report, groundwater data in the vicinity of downgradient wells MW-38A and MW-38B suggested the possibility of an isolated source for the compounds detected in those wells, versus migration via groundwater of constituents from the FF Area.

Background and Purpose

Typically, the constituents in the FF Area, located immediately upgradient of MW-38A, tend to have petroleum hydrocarbons dominate the fill/silty clay unit, with tetrachlorethene (PCE), trichloroethene (TCE) and their degradation products prevalent in the underlying sand unit. In the initial sampling event for MW-38A and B, this relationship was reversed. The detected concentration of PCE and TCE dropped significantly in the two subsequent sampling events as depicted in this abbreviated table for MW-38A.

Constituent	CAS	MCL	Sample Date & Result	Sample Date & Result	Sample Date & Result	Sample Date & Result
			4/3/2012	4/3/2012	7/5/2012	10/2/2012
Chlorobenzene	108-90-7	100	1430	1290	3740	1250
cis-1,2-Dichloroethene	156-59-2	70	202000	216000	208000	151000
Tetrachloroethene	127-18-4	5	8950	7620	<2000	<500
trans-1,2-Dichloroethene	156-60-5	100	262	223	<2000	<500
Trichloroethene	79-01-6	5	1960	1690	<2000	<500
Vinyl chloride	75-01-4	2	18100	16200	22300	24900
Xylene (Total)	1330-20-7	10000	1700	1470	<6000	1770

"<" indicates not detected above the concentration limit shown; concentrations are in µg/l.

Given the distribution of detected constituents upgradient to MW-38A, it suggested a separate source rather than movement of the plume. Data suggested a small investigation in the area would help determine whether remedial efforts using Regenesis or similar products was still appropriate, or whether another approach would be more cost-effective.

Scope of Work - Proposed Investigation

EOI proposes using direct-push technology to investigate soil in the fill/silty clay unit in the vicinity of MW-38A. Four probeholes, two upgradient (south) and two downgradient (north) at a distance of about 15 feet from the well, will be installed for the purpose of collecting soil samples and selecting discrete samples for laboratory analysis.

EOI will be responsible for identifying all buried public utilities on any adjacent public right-of-way property prior to commencement of this Scope of Work. Buried private utilities onsite (not identified during the public utility locate request) and arranging access to the site will be coordinated with the property owner, Mr. Ted Ahrens.

The proposed soil borings will be advanced to a maximum depth of 18 feet to remain in the fill/silty clay unit. Relatively undisturbed soil samples will be collected continuously in these borings using 2-inch diameter acetate-lined Macrocore tubes on four-foot intervals.

Soil samples will be scanned in the field for volatile organic compounds (VOCs) using a photoionization detector (PID) and field observations (e.g., odor, visual, etc.). A description of the soils encountered and PID scan results will be recorded on soil boring logs. A minimum of two soil samples from each boring will be selected for laboratory analysis with one selected from surface soil (0 to 3 feet bgs) and/or subsurface soil (vadose or unsaturated zone below 3 feet bgs).

Soil samples will be selected for analysis from the most likely impacted zones based on field indicators of odor, color, and PID scan results. Soil samples for analyses will be placed in pre-cleaned glassware, labeled, and retained on ice as preservation for transport to the laboratory. Reusable sampling equipment will be decontaminated between boreholes using an Alconox detergent and tap water rinse.

Selected soil samples will be submitted under chain-of-custody procedures to an accredited independent laboratory for the analyses the constituents of concern using SW-846 Method 5035/8260B. Normal lab turnaround time will be requested.

Upon receipt of the laboratory analytical results, a report will be prepared and submitted. This report will include a description of the procedures and methodologies, a scaled site plan, soil boring logs, laboratory analytical results, and conclusions. The data will be evaluated relative to ongoing remedial activities and whether the current approach is cost-effective in meeting remediation goals.

If there are questions or concerns related to this proposed scope, please contact Larry Rosen or Matt Robinson or who can be reached by phone at (314) 241-0900, or via email at larryr@environmentalops.com or matt@environmentalops.com. EOI will implement the proposed scope pending your review and comment.

Respectfully submitted,
ENVIRONMENTAL OPERATIONS, INC.

Lawrence C. Rosen, R.G.
Senior Project Manager

Copy: Mr. Matt Robinson/EOI
Mr. Michael House/Solutia
Ms. Christine Kump-Mitchell/MDNR
Mr. Rich Nussbaum/ MDNR